

5 Changes in the composition of the anode materials, the processes, the structure, and components of the cells may be made without departing from the scope of the present invention as defined in the following claims.

CLAIMS

10 What is claimed is:

1. An electrochemical cell comprising a non-mercury-added anode comprising uniformly shaped zinc particles.
2. An electrochemical cell of claim 1 wherein the uniformly
15 shaped zinc particles have a tap density less than 2.5 g/cc.
3. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles have a tap density less than 2.0 g/cc.
4. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles have a tap density less than 1.5 g/cc.
- 20 5. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles have a tap density less than 1.3 g/cc.
6. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles comprise fifty percent or less of the zinc in the anode.
- 25 7. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles comprise fifty percent or less of the zinc in the anode.
8. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles comprise twenty percent or less of the zinc in the
30 anode.
9. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles comprise fifteen percent or less of the zinc in the anode.

- 5 10. An electrochemical cell of claim 1 wherein the uniformly shaped zinc particles comprise ten percent or less of the zinc in the anode.
11. An electrochemical cell of claim 1 wherein the zinc weight concentration of the anode is less than 70 percent.
- 10 12. An electrochemical cell of claim 1 wherein the zinc weight concentration of the anode is less than 68 percent.
13. An electrochemical cell of claim 1 wherein the zinc weight concentration of the anode is less than 66 percent.
- 15 14. An electrochemical cell of claim 1 wherein the zinc weight concentration of the anode is less than 64 percent.
15. An electrochemical cell of claim 1 wherein the zinc weight concentration of the anode is less than 62 percent.
16. An electrochemical cell of claim 1 wherein the uniformly shaped particles have the length, width and thickness dimensions of 0.06, 0.06 and 0.0025 inches or less.
- 20 17. An electrochemical cell of claim 2 wherein the zinc weight concentration of the anode is less than 67 percent.
18. An electrochemical cell of claim 2 wherein the uniformly shaped zinc particles comprise twenty percent or less of the zinc in the anode.
- 25 19. An electrochemical cell of claim 17 wherein the uniformly shaped zinc particles comprise twenty percent or less of the zinc in the anode

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